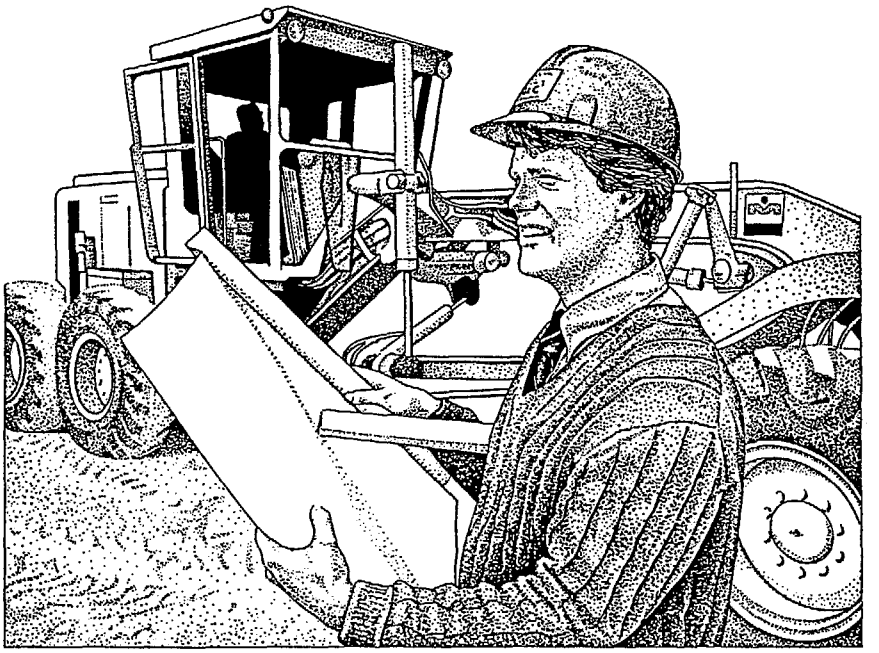
Chapter Five
AIRPORT PLANS

H.A. Clark Memorial Field



Chapter Five
AIRPORT PLANS

H.A. Clark Memorial Field

A set of plans, referred to as **Airport Layout Plans**, has been prepared to graphically depict the recommendations for airfield layouts, disposition of obstructions and future use of land in the vicinity of the airport. This set includes the following.

- Airport Layout Plan
- Terminal Area Plan
- Part 77 Airspace Plan
- Approach Zone Plan
- Runway Protection Zones Plan
- Airport Land Use/Noise Plan
- Airport Property Map

DESIGN STANDARDS

The design standards applied to the development of H.A. Clark Memorial Field are prescribed in FAA Advisory Circular 150/5300-13, Airport Design. The design standards are based upon several factors which include the approach speed, the operating weights and the wingspan of the aircraft.

Based on forecasts of aviation demand, H.A. Clark Memorial Field would be expected to serve general aviation aircraft in an Airport Reference Code (ARC) of B-II. If, on the other hand, the proposed commercial service special use is implemented, the ARC would be B-III. The runway and other airside facilities should be designed to accommodate aircraft in ARC B-III. The design load bearing strength of the runway, taxiway and taxilanes should be designed to support aircraft with weights of 73,000 pounds or less dual wheel loading (DWL). The design standards used in planning the facilities and airport layout are listed in **Table 5A.**

TABLE 5A
Airport Design Standards
H.A. Clark Memorial Field

Descriptor	Existing	Ultimate
Runway Length (ft)	6,000	8,000
Runway Width (ft)	60	100
Runway Strength (lbs)	12,500 SWL	73,000 DWL
Runway Safety Area Length (ft)	300	600
Runway Safety Area Width (ft)	150	300
Runway 18 Runway Protection Zone	Visual	Non-precision
Runway 36 Runway Protection Zone	Visual	Non-precision
Parallel Taxiway Length (ft)	6,000	8,000
Parallel Taxiway Width (ft)	35	50
Parallel Taxiway Strength (lbs)	12,500 SWL	73,000 DWL
Runway Centerline to:		
Parallel Taxiway (ft)	150	300
Aircraft Parking (ft)	250	400
Building Restriction Line (ft)	375	425[1]
Taxiway Centerline to:		
Parallel Taxilane (ft)	65	152
Fixed or Movable Object (ft)	44.5	93
Taxilane Centerline to:		
Parallel Taxilane (ft)	64	140
Fixed or Movable Object (ft)	39.5	81

NOTES: SWL - Single Wheel Loading
DWL - Dual Wheel Loading

[1] - The Building Restriction Line (BRL) will vary depending on runway and terrain elevation. This table assumes the runway and terrain elevations are the same. This distance will provide adequate imaginary surface clearance for a 35-foot building. The BRL has been adjusted to include the parallel taxiway object free area.

SOURCE: FAA AC 150/5300-13

AIRPORT LAYOUT PLAN

The *Airport Layout Plan (ALP)* graphically presents the existing and planned airport layout and depicts the recommended improvements needed to meet forecast aviation demand. Detailed airport and runway data are provided on both the *Airport Data Sheet* **(Sheet No. 1)** and the *ALP* **(Sheet No. 2)** to facilitate the interpretation of the master planning recommendations.

The ALP is an overview of the proposed development of the airport through the year 2015. Although it does not depict the various stages of development leading to the completion of the 20-year plan, additional exhibits and plans in this report show the development stages in detail. The improvements indicated on the ALP and the following plans are expected to be financed in part by the City of Williams, the Arizona Department of Transportation-Aeronautics Division, the FAA's Airport Improvement Program (AIP) and through private funding.

RUNWAY 18-36

Runway 18-36 is planned to be extended by 2,000 feet to a total length of 8,000 feet. The runway width would also be increased to 100 feet in order to accommodate the proposed DC-4 commercial service aircraft. The parallel taxiway will also be extended an additional 2,000 feet, as well as, widened from 35 feet to 50 feet. The pavement strength of the runway and taxiway will be increased to 73,000 pounds DWL. The construction of the runway and taxiway extensions and widening will also include the installation of Medium Intensity Runway Lights (MIRL) and Medium Intensity Taxiway Lights (MITL).

PROPERTY ACQUISITION

The ALP also depicts property acquisition proposed adjacent to the airport. This includes approximately 140 acres, primarily to the east of the existing property. The acquisition of this land is for the addition of a commercial/industrial development area for airport revenue support. The 140 also includes the acquisition of the RPZs for both ends of Runway 18-36.

AIRFIELD DEVELOPMENT STAGING

The 20-year planning period has been divided into three stages: Stage I, Stage II, and Stage III. Each stage and the airside development items associated with it are described in the following paragraphs.

Stage I, the first five year period of the development program, has been subdivided into individual fiscal years, FY 1996 through FY 2000. Stage I includes the following major airside development items: extension of Runway 18-36 and its parallel taxiway to 8,000 feet in length; the widening of Runway 18-36 first to 75 feet then to 100 feet; the widening of the parallel taxiway to 50 feet; the installation of PAPIs, REILs, MIRLs, and MITLs; and the establishment of a nonprecision GPS approach to both ends of Runway 18-36.

The **Stage II** development program encompasses the five-year period from FY 2001 to FY 2005. The one airfield related project programmed for Stage II is pavement preservation.

Stage III includes projects for the longer range needs of the airport that will be accomplished during the period FY 2006 to FY 2015. The only airfield project programmed for this period is pavement preservation.

TERMINAL AREA PLAN

The *Terminal Area Plan*, **Sheet No. 3**, represents a refinement of the selected development configuration and provides a more detailed plan of the general aviation and commercial service terminal facilities.

Stage I consists of the development of a commercial service terminal area, including a terminal building, auto parking, access roads, and apron area. In addition, the general aviation tiedown area will be expanded and an FBO/conventional hangar facility and associated automobile parking lot would be added on the west end of the existing ramp. In addition, the installation of a aircraft fuel farm is programmed for this stage of development. In preparation of the construction of new T-hangars in Stage II, taxilanes will be constructed to serve the development site.

Stage II development will include construction of a new general aviation area with tiedowns and T-hangars. Stage II also includes the construction of a new taxilane to serve aviation related development parcels located east of the future general aviation ramp and the construction of a second FBO/conventional hangar facility with automobile parking facilities. Stage II also includes an expansion of the commercial service apron, the realignment of Airport Road and Forest Road 16 in the vicinity of the airport, and the initial development of commercial/industrial airport revenue support parcels.

Stage III terminal area development will include further expansion of the commercial service facilities, as well as expansion of the commercial/industrial development areas, and redevelopment of the existing general aviation ramp and tiedown area.

PART 77 AIRSPACE PLAN

The *Part 77 Airspace Plan* for H.A. Clark Memorial Field, **Sheet No. 4**, is based on Federal Aviation Regulation (F.A.R.) Part 77, Objects Affecting Navigable Airspace. The intent of these regulations is to protect the airspace and approaches to each runway from hazards that could affect the safe and efficient operation of the airport.

The Part 77 Airspace Plan is a graphic depiction of the imaginary surfaces described for various airport geometric planes, such as the runway (primary and transition surfaces), approach (approach surface), and the airport (horizontal and conical surfaces). Design criteria for surface heights, angles and radii on this plan are determined by airport category and runway approach instrumentation. The Airspace Plan for H.A. Clark Memorial Field is based on large airplane nonprecision approaches to both runway ends. These drawings will permit the City of Williams to readily determine if construction of a proposed structure in the vicinity of the airport would penetrate any of the protected airspace surfaces.

The obstructions recorded at H.A. Clark Memorial Field are indicated on **Sheet No. 4**. Those obstructions that pertain to the runway protection zones and approach zones are explained in greater detail on the appropriate drawings that follow.

Obstructions to the other airspace surfaces are described briefly below.

PRIMARY SURFACE OBSTRUCTIONS

The *primary* surface for the ultimate runway at H.A. Clark Memorial Field is 500 feet in width, extends 200 feet beyond each runway end and is centered on the runway. There are no obstructions to the primary surface at H.A. Clark Memorial Field.

TRANSITION SURFACE OBSTRUCTIONS

The *transition* imaginary surface is an imaginary surface used to join two surfaces together. The transition surface has a slope of 7 to 1 and joins the primary surface to the approach or horizontal imaginary surfaces. There were no obstructions identified within the transition surfaces.

HORIZONTAL SURFACE OBSTRUCTIONS

The *horizontal* surface is established at 150 feet above the highest airport elevation. The horizontal surface has a radius of 5,000 feet from the ends of the runways. A tangent line connects both arcs, ultimately describing the surface exhibited in **Sheet No. 4.**

Based on the ultimate airport design, the obstructions to the horizontal surface are associated with rising terrain to the east and southwest of the airport. It is recommended that an FAA Aeronautical Study be performed to determine if there are any hazards to navigable airspace. Each obstruction should be indicated in all aviation publications pertaining to the airport and lighted whenever possible.

CONICAL SURFACE OBSTRUCTIONS

The *conical* surface for H.A. Clark Memorial Field is 4,000 feet in length and slopes away from the horizontal surface ar a 20 to 1 slope to a height of 350 feet above the established airport elevation.

Based on the ultimate airport design, the obstructions to the imaginary conical surface are associated with rising terrain north, east and south of the airport. It is recommended that an FAA Aeronautical Study be performed to determine if there are any hazards to navigable airspace. Each obstruction should be indicated in all aviation publications pertaining to the airport and lighted whenever possible.

APPROACH ZONES PLAN

The *Approach Zone Plan*, **Sheet No. 5**, is a profile representation of the approach surfaces off each end of the runway. The plan depicts the physical features near each runway's extended centerline, including significant topographic changes, roadways, levees and railroads. The dimensions and angles of the approach surfaces are prescribed in Part 77 and depend upon the runway instrumentation and the type of aircraft served.

The approach slopes for the existing visual approaches to Runway 18-36 are 20 to 1, while the future non-precision approaches are 34 to 1. There are no obstruction identified within the approach surface for Runway 18-36.

RUNWAY PROTECTION ZONES PLAN

The *Runway Protection Zones Plan*, **Sheet No. 5**, consists of a large scale plan and profile view of the inner portions of the approach surfaces. This plan is designed to facilitate identification of roadways, levees, utility lines, structures and other possible obstructions that may lie within the confined of these safety areas at the ends of each runway.

The runway protection zone dimensions are a function of the size of the aircraft and the runway instrumentation. The runway protection zone for Runway 18-36 will be sized for large aircraft (12,500 pounds or more) under non-precision instrument operations (GPS procedures).

LAND USE/NOISE PLAN

The objective of the *Land Use/Noise Plan*, **Sheet No. 6**, is to coordinate land uses both on the airport property and in surrounding areas, so that land uses are compatible and able to function without major constraints or annoyance. The Land Use/Noise Plan depicts the recommended land use proposed in the vicinity of H.A. Clark Memorial Field, both on and off airport property. The major objective of this plan is to protect and secure this valuable community asset, and the investment of community, state, and federal dollars.

The Land Use/Noise Plan depicts the land uses anticipated on the airfield and the terminal area; the revenue support commercial/industrial development area proposed; as well as off-airport lands adjacent to the airport property. The area depicted on the map was chosen to allow depiction of the 60 DNL and above noise contours for the year 2015, and to roughly approximate the horizontal extent of lower-elevation aircraft movements, or those movements associated with aircraft landings or departures.

The lower-elevation aircraft movement area was determined based on FAA's *Traffic Pattern Airspace* for this airport as specified in FAA Order 7400.2C, *Procedures for Handling Airspace Matters*. The size and dimensions of the Traffic Pattern Airspace are based on the approach speed of aircraft expected to use a particular runway. Slower aircraft can fly in a tighter or smaller pattern around the airport than can faster aircraft. As a general rule, aircraft outside of this Traffic Pattern Airspace would be expected to maintain a higher elevation than those operating within this area, and consequently, would be less likely to impact land uses situated underneath. **Sheet No. 6** depicts the generalized traffic pattern airspace or *Airport Influence Area*.

NOISE PLAN

Noise levels anticipated by future aircraft operations for the year 2015 have been determined through the use of the Integrated Noise Model (INM) Version 4.11. This is a computer model which predicts noise exposure levels generated by aircraft operations over a 24-hour period. In general, the FAA recommends that residential and other noise sensitive land uses not be constructed within the 65 Yearly Day-Night Average Noise Level (DNL) contour area. The noise contours generated for H.A. Clark Memorial Field are depicted on the **Land Use/Noise Plan, Sheet No. 6.** Land use categories considered compatible with aviation operations are recommended for these areas.

Residential land uses, for example, are often sensitive to noise or aircraft overflight since those activities associated with residential uses (relaxation, sleep, and speech) can be adversely impacted be noise events. Similarly, schools, libraries, and other public buildings normally require an interior noise environment suitable for uninterrupted speech communication and are also considered noise-sensitive. When circumstances permit, these land uses should not be planned in areas of airport traffic patterns and approaches to runways, even though the noise level is not considered significant.

In contrast, open space, agricultural, industrial, and commercial land uses can adequately function under higher noise exposure levels and, thus, are considered more compatible for these areas. Consistent with existing zoning, the Land Use/Noise Plan designates the area outside of the future airport property as "Open Space/Conservation Zone."

Refer to **Chapter 6.0, Environmental Evaluation**, for additional discussion of noise and compatible land uses.

ON-AIRPORT LAND USE

The purpose of the on-airport land use plan is to establish uses of the airport property in a way consistent with the distinct operations of the airport facility. On-airport land use planning is important to orderly development and efficient use of available space. On-airport land use planning is also necessary to minimize the potential for future incompatible land uses.

The on-airport land use is also depicted on the **Land Use/Noise Plan, Sheet No. 6.** Six types of land uses are identified on the Land Use/Noise Plan for on-airport uses: airfield, general aviation, commercial service, aviation-related revenue support, non-aviation revenue support, and aviation-related recreational areas.

The **airfield**, the most predominant land use on airports, encompasses the airfield operations area. It includes the runway, taxiways, safety areas, approach zones, etc.

The **general aviation** area includes facilities such as the FBO facilities, tiedowns, hangars, etc. The **commercial service** area includes the terminal building, auto parking, and apron area serving commercial service operations.

The **aviation-related revenue support** land use category, which is located with access to the runway and taxiway system, preserves land for the development of businesses that require or benefit from this access, such as aircraft painting and maintenance and aircraft manufacturing.

The **non-aviation related revenue support** area is reserved for businesses that do not require access to the runway/taxiway system. Generally, this land use is associated with non-aviation related commercial/industrial development designed to provide revenue support to the airport.

The on-airport land use plan is designed to provide basic guidance for the City of Williams in making decisions related to development of H.A. Clark Memorial Field. Following the general recommendations of the plan, the airport can maintain an excellent relationship between the users and the community.

OFF-AIRPORT LAND USE

The predominate existing land use in the area surrounding H.A. Clark Memorial Field is vacant. The Kaibab National Forest surrounds the airport property. Two existing residential/noise sensitive land uses in the proximity of the airport are the Pronghorn Ranch and Camp Civitan, located approximately two miles north of the airport.

It is important to emphasize that noise contours produced by an airport are guides to proper land use planning. While it is sometimes impractical to change pre-existing land uses that are considered incompatible with airport operations, it is desirable to protect the lands within the airport influence area from further incompatible land use development.

As previously mentioned, open space, agricultural, industrial, and commercial land uses can adequately function under higher noise exposure levels and, thus, are considered more compatible within airport influence areas. To be compatible with airport operations, while at the same time maintaining consistency with existing zoning, the Land Use/Noise Plan designates the area outside of the future airport property within the airport influence area as "Open Space/Conservation Zone."

AIRPORT PROPERTY MAP

The *Airport Property Map*, **Sheet No. 7**, depicts the property that comprises H.A. Clark Memorial Field. The documents recording the land acquisitions are described as well as the type of instrument (quit claim deed, special use permit, etc.) used to acquire the property.

SUMMARY

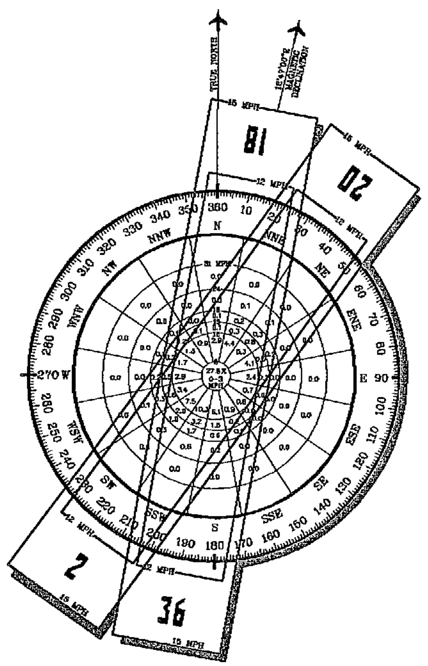
The Airport Plan Set is designed to provide the City of Williams with basic guidance for future development decisions at H.A. Clark Memorial Field. The plan set provides for development to satisfy aviation demand, from short term needs to and long range goals. Flexibility will be a key to future development since aviation growth is not likely to occur exactly as forecast.

AIRPORT DATA			
H.A. CLARK MEMORIAL FIELD (P32)			
CITY: WILLIAMS	COUNTY: COCONINO, ARIZONA		
RANGE: R2E TOWNSHIP: T22N	CIVIL TOWNSHIP: --		
		EXISTING	ULTIMATE
AIRPORT SERVICE LEVEL		GENERAL AVIATION	COMMERCIAL
AIRPORT REFERENCE CODE		B–II	B–III
AIRPORT ELEVATION		6690'	6685'
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		85°F (July)	SAME
AIRPORT REFERENCE POINT	Latitude	35°18.13'N	35°18'21.98"N
(ARP) COORDINATES (NAD 83)	Longitude	112°11.64'W	112°11'36.29"W
AIRPORT and TERMINAL NAVIGATIONAL AIDS		ROTATING BEACON	PAPI–2 (BOTH)
		--	REIL (BOTH)
		--	GPS (BOTH)
		--	--
		--	--
		--	--
		--	--
		--	--
		--	--
		--	--
		--	--

RUNWAY DATA	RUNWAY 18-36		RUNWAY 2-20	
	EXISTING	ULTIMATE	EXISTING	ULTIMATE
AIRPORT REFERENCE CODE	B–II	B–III	B–I	RUNWAY TO BE ABANDONED
RUNWAY AZIMUTH	10.52	SAME	36.586	
RUNWAY BEARING	N10°31'18.73"E	N10°31'13.83"E	N36°35'08.29"E	
RUNWAY DIMENSIONS	6000' X 60'	8000' X 100'	4250' X 42'	
RUNWAY INSTRUMENTATION	VISUAL/VISUAL	NONPREC./NONPREC.	VISUAL/VISUAL	
RUNWAY APPROACH SURFACES	20:1/20:1	34:1/34:1	20:1	
RUNWAY THRESHOLD DISPLACEMENT	NONE	SAME	NONE	
RUNWAY STOPWAY	NONE	SAME	NONE	
RUNWAY SAFETY AREA	6480' X 120'	9200' X 300'	4730' X 120'	
RUNWAY OBSTACLE FREE ZONE	6400' X 250'	8400' X 400'	4650' X 250'	
RUNWAY OBJECT FREE AREA	6480' X 250'	10,000' X 800'	4730' X 250'	
TAKEOFF RUN AVAILABLE (TORA)	6000'/6000'	8000'/8000'	4250'/4250'	
TAKEOFF DISTANCE AVAILABLE (TODA)	6000'/6000'	8000'/8000'	4250'/4250'	
ACCELERATE–STOP DISTANCE AVAILABLE (ASDA)	6000'/6000'	8000'/8000'	4250'/4250'	
LANDING DISTANCE AVAILABLE (LDA)	6000'/6000'	8000'/8000'	4250'/4250'	
PAVEMENT MATERIAL	ASPHALT	SAME	ASPHALT	
PAVEMENT SURFACE TREATMENT	NONE	SAME	NONE	
PAVEMENT STRENGTH (in thousand lbs.)[1]	15 (S)	80 (D)	N/A	
RUNWAY EFFECTIVE GRADIENT (in %)	1.0	SAME	1.4	
RUNWAY MARKING	VISUAL	NONPREC./NONPREC.	VISUAL	
RUNWAY LIGHTING	MIRL	SAME	INOPERATIVE	
RUNWAY APPROACH LIGHTING	NONE	SAME	NONE	
TAXIWAY LIGHTING	NONE	MITL	NONE	
TAXIWAY MARKING	NONE	CENTERLINE	NONE	
NAVIGATIONAL AIDS	ROTATING BEACON	PAPI–2 (BOTH)	--	
	--	REIL (BOTH)	--	
	--	GPS (BOTH)	--	
	--	--	--	
	--	--	--	
	--	--	--	
	--	--	--	
	--	--	--	

[1] Pavement strengths are expressed in Single(S), Dual(D), Dual Tandem(DT), and/or Double Dual Tandem(DDT) wheel loading capacities.

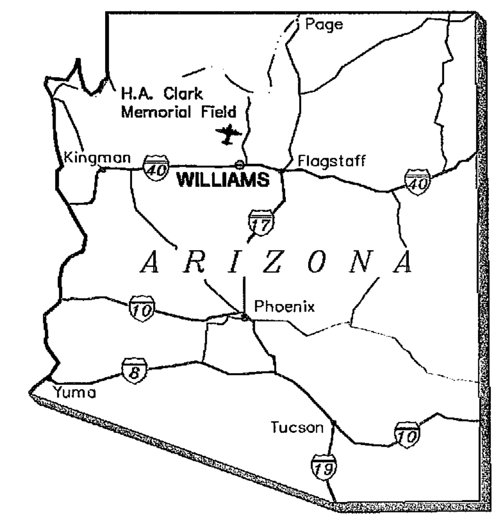
RUNWAY END COORDINATES NAD 83		EXISTING	ULTIMATE
RUNWAY 18	Latitude	35°18'41.434"W	35°18'0.884"W
	Longitude	112°11'31.884"N	112°11'27.477"N
RUNWAY 36	Latitude	35°17'43.083"W	SAME
	Longitude	112°11'45.105"N	SAME
RUNWAY 2	Latitude	35°18'17.442"W	—
	Longitude	112°11'23.355"N	—
RUNWAY 20	Latitude	35°17'45.373"W	—
	Longitude	112°11'52.394"N	—



SOURCE:
NOAA National Climatic Center
Asheville, N.C.
PULLIAM AIRPORT
Flagstaff, AZ.
OBSERVATIONS:
46,546 Observations
1962–1978

ALL WEATHER WIND COVERAGE	12 MPH	15 MPH
Runway 18–36	97.33%	99.49%
Runway 2–20	98.85%	99.10%

DEVIATIONS FROM FAA AIRPORT DESIGN STANDARDS				
DEVIATION DESCRIPTION	EFFECTED DESIGN STANDARD	STANDARD	EXISTING	PROPOSED DISPOSITION
–	–	–	–	–



LOCATION MAP
Not To Scale

No.	REVISIONS	DATE	BY	APP'D.
⚠	–	–	–	–

"THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION AS PROVIDED UNDER SECTION 505 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, AS AMENDED. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

H.A. CLARK MEMORIAL FIELD

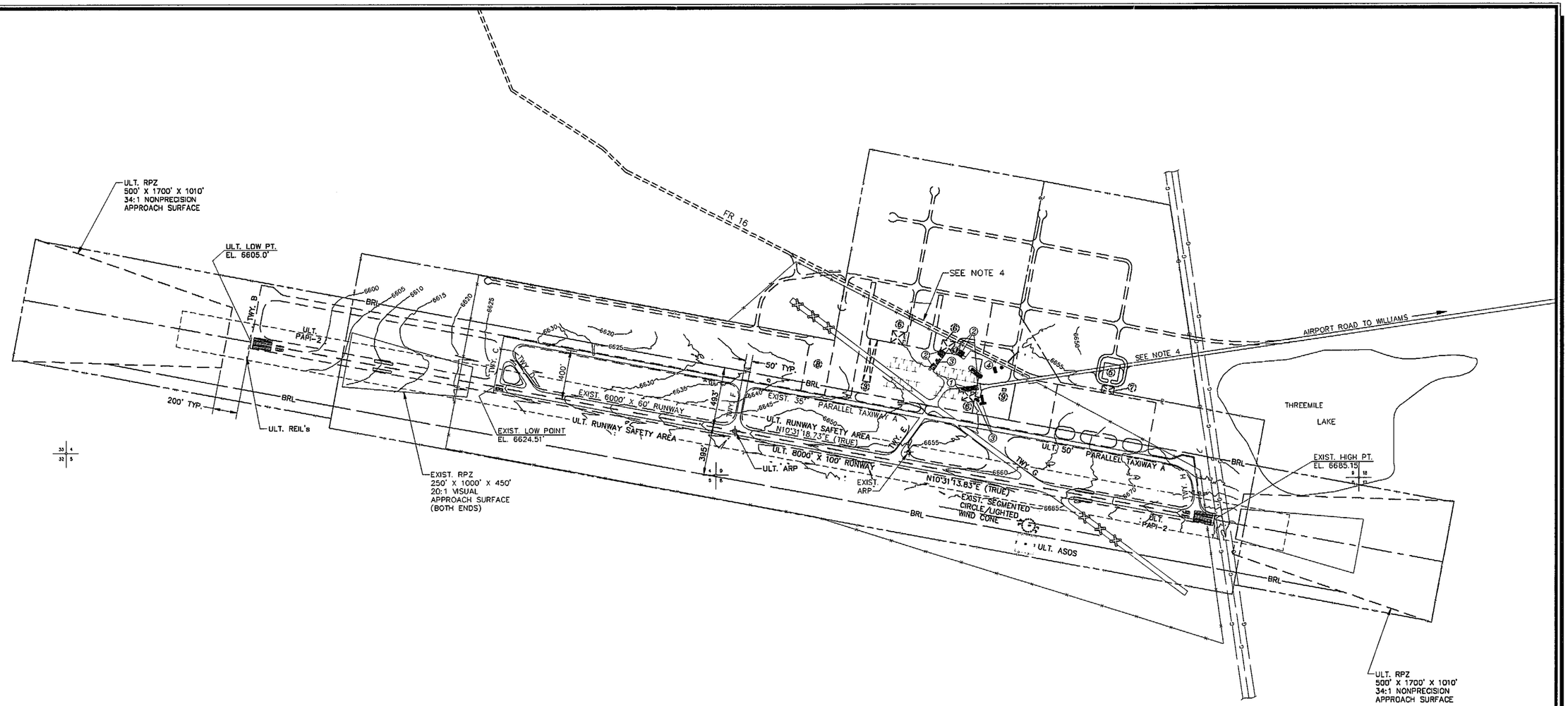
AIRPORT DATA SHEET

WILLIAMS, ARIZONA

PLANNED BY: Leslie S. McGaughey/Scott T. Gray
DETAILED BY: W.E. Holland
APPROVED BY: Jeanette V. Coffman
January 26, 1995 SHEET 1 OF 7

Coffman Associates Airport Consultants

Coffman Associates WILLDATA.DWG 01-26-1995 07:50



LEGEND

EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIGATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
		BUILDING DEMOLITION
	BRL	*BUILDING RESTRICTION LINE (BRL)*
		DIRT ROAD
		DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
VASI-4	PAPI-4	*NAVIGATIONAL AID INSTALLATION*
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SEGMENTED CIRCLE/WIND INDICATOR
34 35 32 5		*SECTION CORNER*
1080		*TOPOGRAPHIC CONTOURS (SFC Engineering Co.)*
		WIND INDICATOR (Lighted)
G	G	*UNDERGROUND GAS LINE*

BUILDINGS/FACILITIES

EXISTING	ULTIMATE	DESCRIPTION
①	--	*CARETAKER RESIDENCE*
②	②	*CONVENTIONAL HANGAR*
③	③	*T-HANGAR*
④	--	*EQUIPMENT BUILDING*
--	⑤	***AUTO PARKING***
--	⑥	***FBO FACILITY/CONVENTIONAL HANGAR***
--	⑦	***COMMERCIAL SERVICE TERMINAL***
--	⑧	***COMMERCIAL SERVICE MAINTENANCE FACILITY***
--	⑨	***FUEL STORAGE***

GENERAL NOTES:

1. Depiction of features and objects, including related elevations within the runway protection zones are depicted on the PROTECTION ZONES PLANS.
2. Details concerning terminal improvements are depicted on the TERMINAL AREA PLAN.
3. Recommended land uses within the airport environs are depicted on the AIRPORT LAND USE PLAN.
4. Portions of road to be abandoned upon completion of future access improvements.

SUBMITTED BY: ON THE DATE OF:
Coffman Associates

FOR APPROVAL BY:

APPROVED BY: ON THE DATE OF:

Jan C. Wellman
City Manager

MAG NORTH

MAGNETIC VARIANCE - 12°44'E (Jan. 1995)
RATE OF CHANGE 2.6' W

0 400 800 1200
SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D.
1	-	-	-	-
2	-	-	-	-

"THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION AS PROVIDED UNDER SECTION 505 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, AS AMENDED. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

H.A. CLARK MEMORIAL FIELD

AIRPORT LAYOUT PLAN

WILLIAMS, ARIZONA

PLANNED BY: Leslie S. McGaughey/Scott S. Gray
DETAILED BY: W.S. Holland
APPROVED BY: Jeanelle V. Coffman

January 26, 1996 SHEET 2 OF 7

Coffman Associates
Airport Consultants

FR 16 (SEE NOTE 4)

AIRPORT ROAD (SEE NOTE 4)

BRL

EXIST. 35' PARALLEL TAXIWAY A

ULT. 50' PARALLEL TAXIWAY A

ULT. RUNWAY SAFETY AREA

TWY. F

TWY. C

ULT. 8000' X 100' RUNWAY

EXIST. 6000' X 60' RUNWAY

EXIST. RUNWAY SAFETY AREA

ULT. RUNWAY SAFETY AREA

6645

6650

6655

6660

6665

6670

6675

EXIST. SEGMENTED CIRCLE/LIGHTED WIND CONE

ULT. ASOS

MAG NORTH

MAGNETIC VARIANCE - 12°44'E (Jan. 1995)
RATE OF CHANGE 2.6' W

0 100 200 300

SCALE IN FEET

LEGEND

EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIGATION EASEMENT (if applicable)
		BUILDING CONSTRUCTION
		BUILDING DEMOLITION
	BRL	BUILDING RESTRICTION LINE (BRL)
		DIRT ROAD
		DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
VASI-4	PAPI-4	NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SEGMENTED CIRCLE/WIND INDICATOR
34-33 3.2		SECTION CORNER
1080		TOPOGRAPHIC CONTOURS (SFC Engineering Co.)
WDI	WDI	WIND INDICATOR (Lighted)
G	G	UNDERGROUND GAS LINE

BUILDINGS/FACILITIES

EXISTING	ULTIMATE	DESCRIPTION
①	--	CARETAKER RESIDENCE
②	②	CONVENTIONAL HANGAR
③	③	T-HANGAR
④	--	EQUIPMENT BUILDING
--	⑤	AUTO PARKING
--	⑥	FBO FACILITY/CONVENTIONAL HANGAR
--	⑦	COMMERCIAL SERVICE TERMINAL
--	⑧	COMMERCIAL SERVICE MAINTENANCE FACILITY
--	⑨	FUEL STORAGE

GENERAL NOTES:

1. Depiction of features and objects, including related elevations within the runway protection zones are depicted on the PROTECTION ZONES PLANS.
2. Details concerning overall airport improvements are depicted on the AIRPORT LAYOUT PLAN.
3. Recommended land uses within the airport environs are depicted on the AIRPORT LAND USE PLAN.
4. Portions of road to be abandoned upon completion of future access improvements.

No.	REVISIONS	DATE	BY	APP'D.
1	-	-	-	-

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H.A. CLARK MEMORIAL FIELD

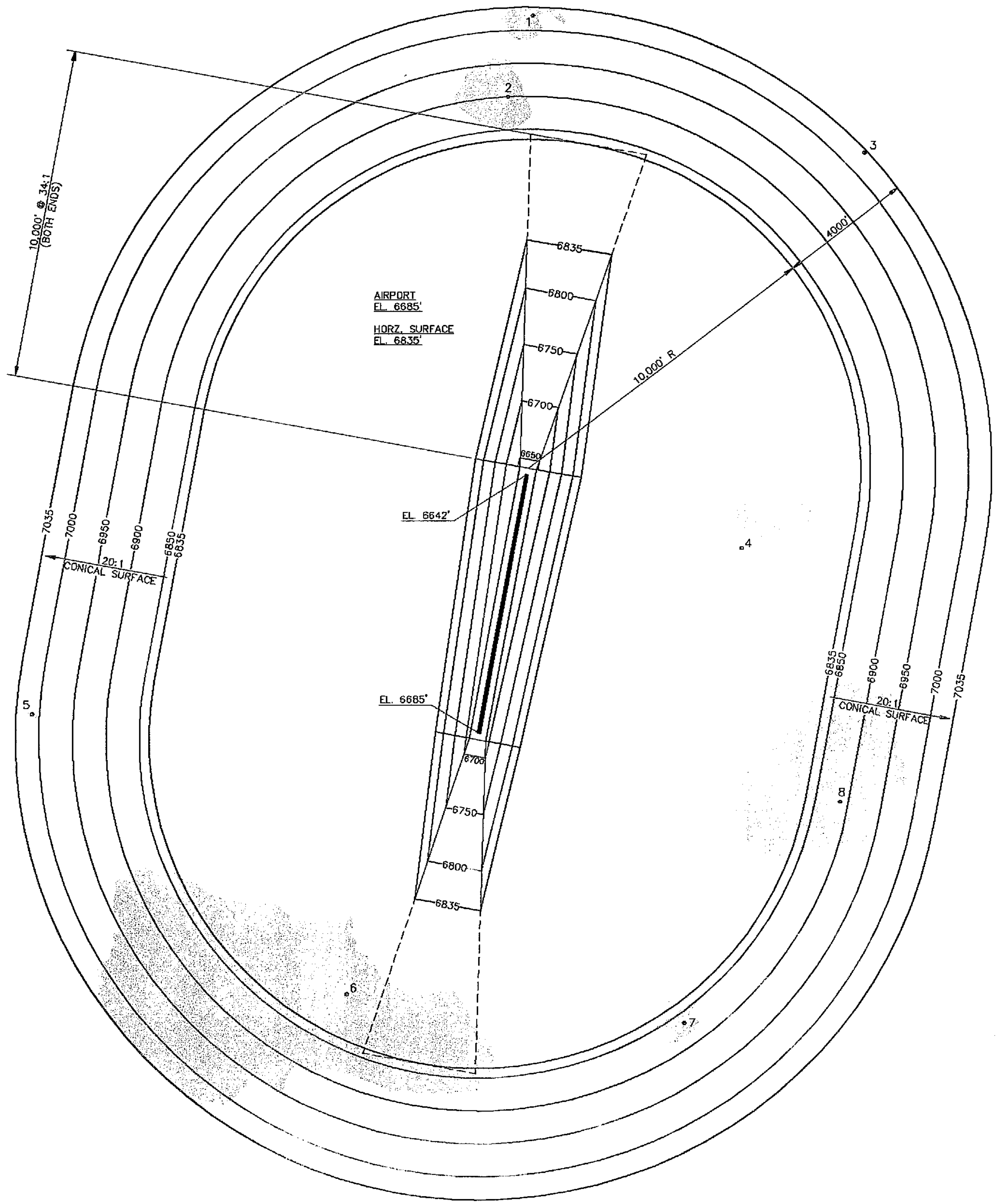
TERMINAL AREA PLAN

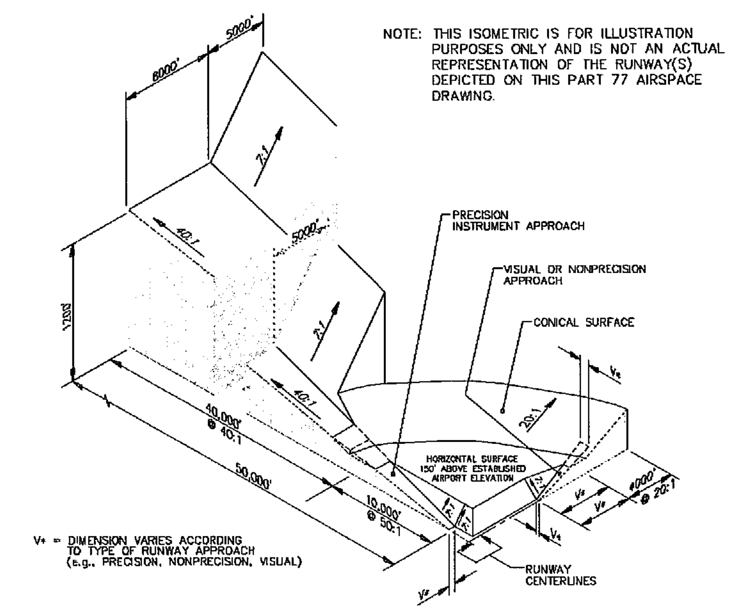
WILLIAMS, ARIZONA

PLANNED BY: Leslie S. McDougherty/Scott J. Gray
DETAILED BY: W.S. Holland
APPROVED BY: Jeanelle V. Coffman

January 26, 1995 | SHEET 3 OF 7

Coffman Associates
Airport Consultants





ISOMETRIC VIEW OF SECTION THRU CENTERLINE OF RUNWAYS

N.T.S.

OBSTRUCTION LEGEND

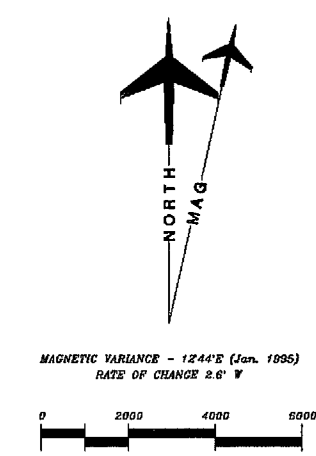
- •¹ OBSTRUCTION
- [•¹] GROUP or MULTIPLE OBSTRUCTIONS

OBSTRUCTION TABLE

Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. Terrain	7080'	Conical	7022'	+58'	
2. Terrain	7133'	Conical	6900'	+233'	
3. Terrain	7280	Conical	7031'	+249'	
4. Terrain	7073'	Horizontal	6835'	+238'	Request FAA
5. Terrain	7041'	Conical	7011'	+30'	Aeronautical Study
6. Terrain	7159'	Horizontal	6835'	+324'	
7. Terrain	6880'	Conical	6865'	+15'	
8. Terrain	7382'	Conical	6887'	+495'	

GENERAL NOTES:

1. Obstructions, clearances, and locations are calculated from ultimate runway end elevations and ultimate approach surfaces, unless otherwise noted.
2. Depiction of features and objects within the outer portion of the approach surfaces, is illustrated on the APPROACH ZONES PROFILES, sheet 5 of these plans.
3. Depiction of features and objects within the inner portion of the approach surfaces, is illustrated on the PROTECTION ZONES PLAN, sheet 5 of these plans.
4. Existing and future height and hazard ordinances are to be amended and/or referenced upon approval of updated PART 77 AIRSPACE PLAN.



MAGNETIC VARIANCE - 12°44'E (Jan. 1995)
RATE OF CHANGE 2.6' W

No.	REVISIONS	DATE	BY	APP'D.
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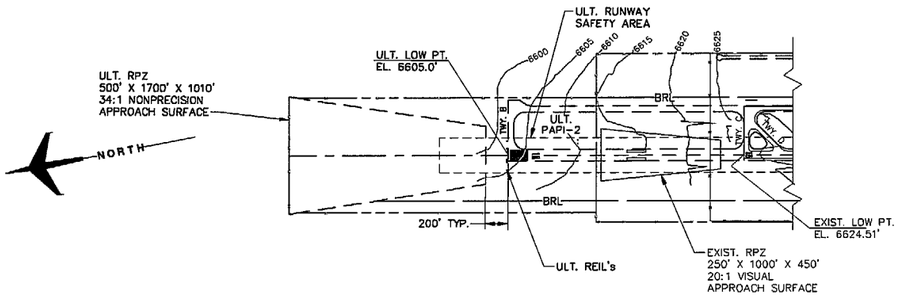
H.A. CLARK MEMORIAL FIELD

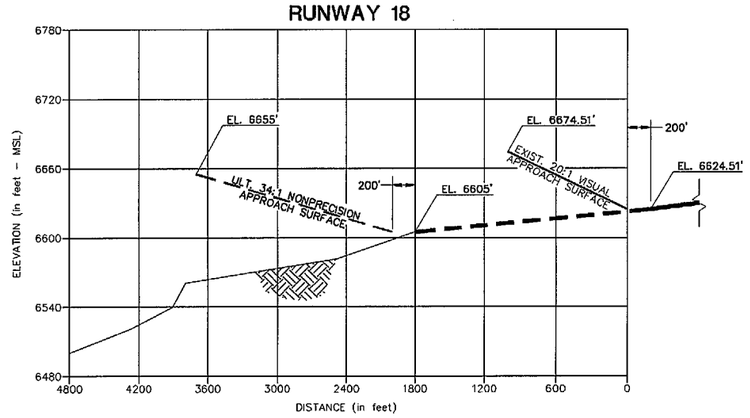
PART 77 AIRSPACE PLAN

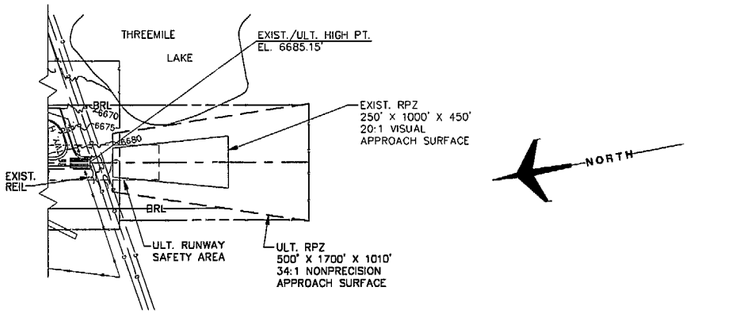
WILLIAMS, ARIZONA

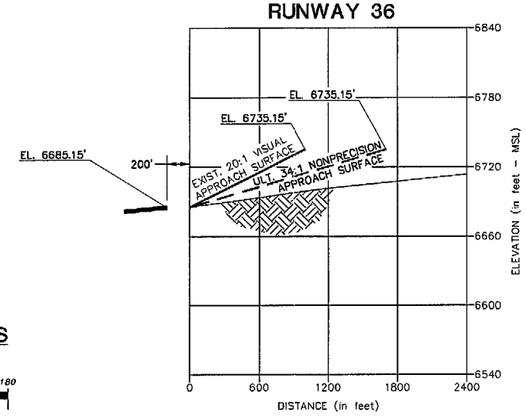
PLANNED BY: Leslie S. McGaughey/Scott S. Gray
DETAILED BY: W.S. Holland
APPROVED BY: Jeanette V. Coffman
January 26, 1995 SHEET 4 OF 7

Coffman Associates Airport Consultants

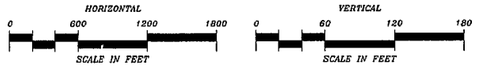


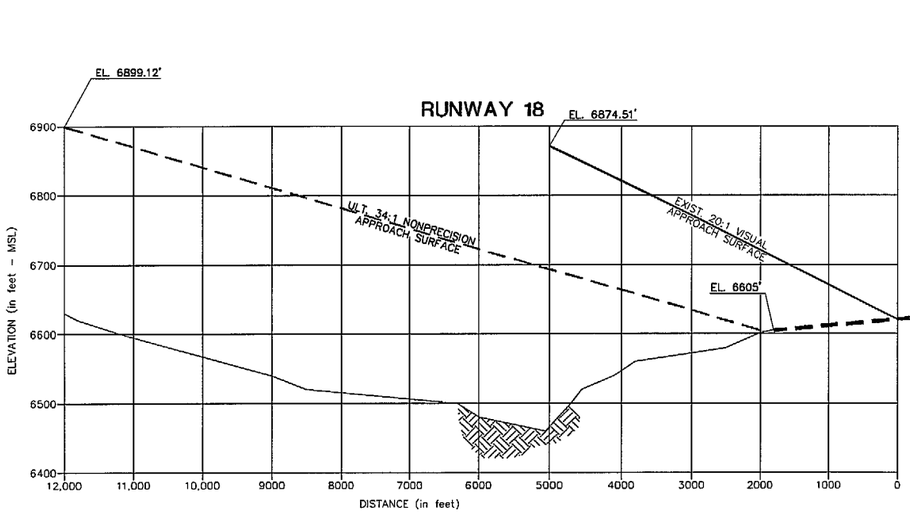


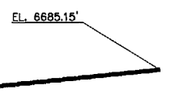


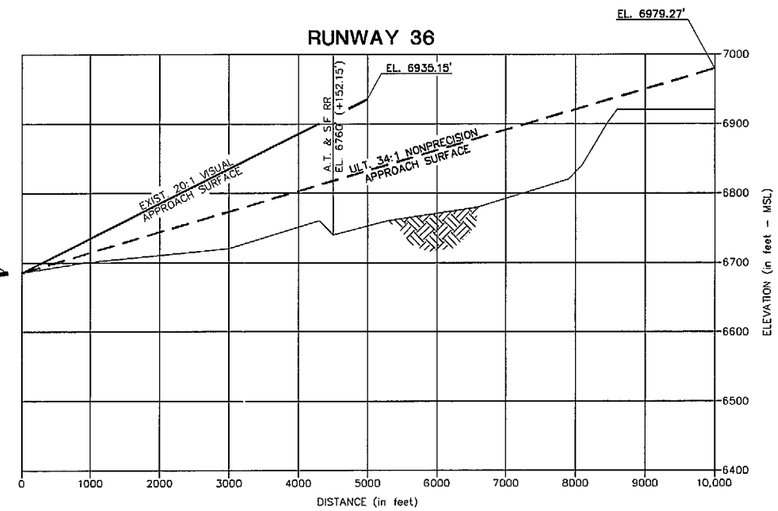


RUNWAY 18-36
PROTECTION ZONES PLANS AND PROFILES

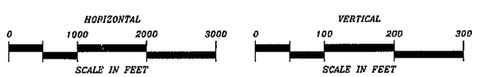








RUNWAY 18-36
APPROACH ZONES PROFILES



No.	REVISIONS	DATE	BY	APP'D.
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H.A. CLARK MEMORIAL FIELD
APPROACH ZONES PROFILES/ RUNWAY PROTECTION ZONES PLANS AND PROFILES
WILLIAMS, ARIZONA

PLANNED BY: Leslie S. McGaughey/Scott S. Gray
DETAILED BY: W.E. Holland
APPROVED BY: Jeanelle V. Coffman
January 26, 1995 | SHEET 5 OF 7

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TRANSMISSION LINE

PRONGHORN RANCH

CAMP CIVITAN

PIPELINE

PIPELINE

FR 15

AIRPORT ROAD (TO WILLIAMS)

THREEMILE LAKE

60

65

70

75

75

70

65

60

NORTH

0 600 1200 1800

SCALE IN FEET

LEGEND

- EXISTING AIRPORT PROPERTY LINE
- ULTIMATE AIRPORT PROPERTY LINE
- 65 DNL CONTOUR – 2015
- KAIBAB NATIONAL FOREST BOUNDARY
- SECTION NUMBER

LAND USE LEGEND

ON-AIRPORT

- AIRFIELD OPERATIONS
- COMMERCIAL SERVICE
- AVIATION RECREATIONAL AREA
- GENERAL AVIATION
- AVIATION RELATED REVENUE SUPPORT
- NON-AVIATION REVENUE SUPPORT

OFF-AIRPORT

- OPEN SPACE/CONSERVATION ZONE

No.	REVISIONS	DATE	BY	APP'D.
1	-	-	-	-

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H.A. CLARK MEMORIAL FIELD

LAND USE/NOISE PLAN

WILLIAMS, ARIZONA

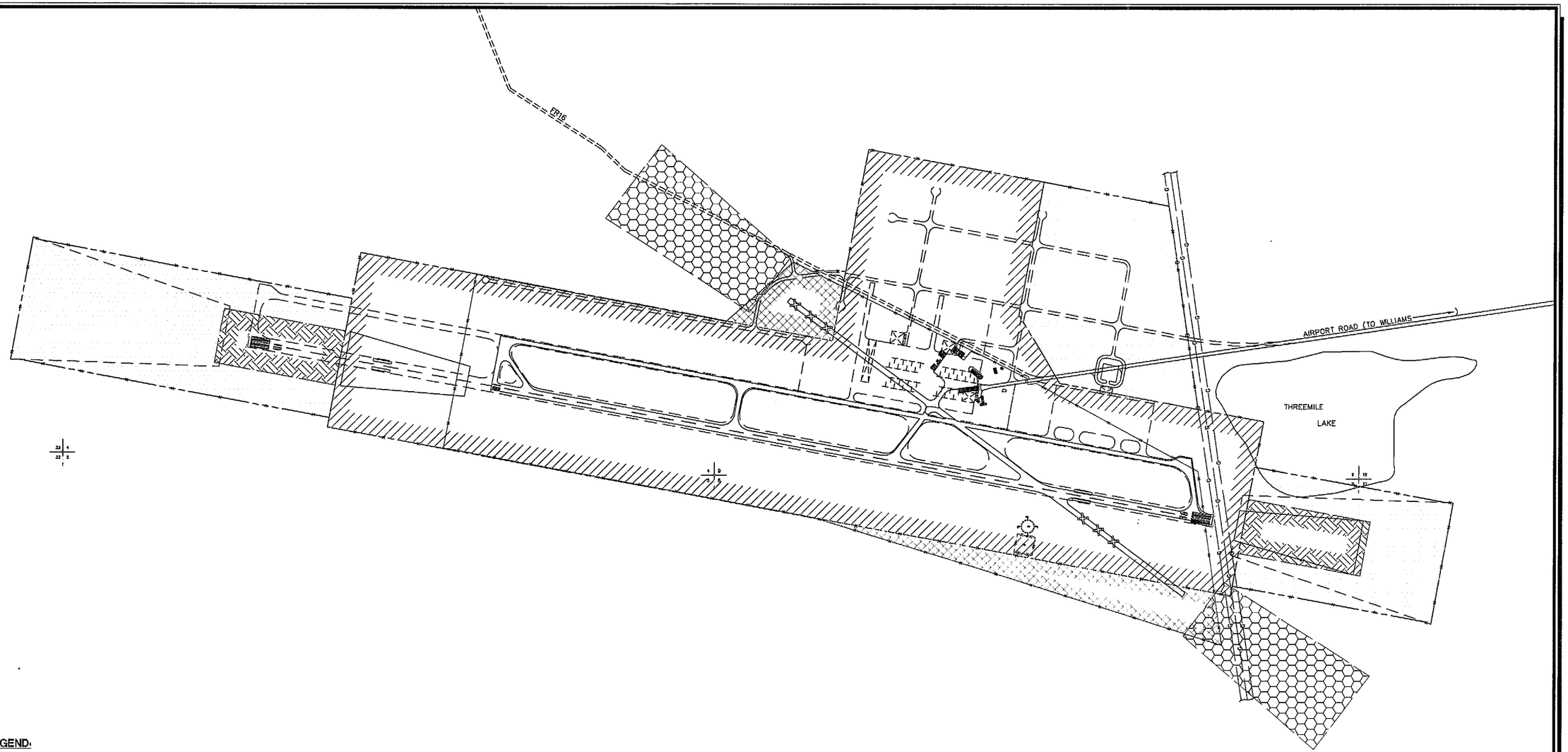
PLANNED BY: Leslie S. McGaughey/Scott S. Gray

DETAILED BY: W.E. Holland

APPROVED BY: Jeanelle V. Coffman

January 31, 1995 SHEET 6 OF 7

Coffman Associates
Airport Consultants



LEGEND:

DESCRIPTION: PUBLIC AIRPORT
GRANTOR: UNITED STATES of AMERICA
TYPE: QUITCLAIM DEED
DATE: NOVEMBER 17, 1948
ACRES: 305
RECORDED: COCONINO COUNTY
BOOK: 7 PAGE: 182-187

DESCRIPTION: SPECIAL USE AREA
GRANTOR: U.S. FOREST SERVICE, USDA
TYPE: SPECIAL USE PERMIT (#2710)
DATE: SEPTEMBER 22, 1959
ACRES: 24
RECORDED: N/A
BOOK: N/A PAGE: N/A

DESCRIPTION: SPECIAL USE AREA
GRANTOR: U.S. FOREST SERVICE, USDA
TYPE: SPECIAL USE PERMIT,
AMENDMENT #2 (REF: FSM 2714)
DATE: SEPTEMBER 30, 1982
ACRES: 41.77
RECORDED: N/A
BOOK: N/A PAGE: N/A

DESCRIPTION: SPECIAL USE AREA
GRANTOR: U.S. FOREST SERVICE, USDA
TYPE: SPECIAL USE PERMIT,
AMENDMENT #3 (REF: FSM 2714)
DATE: MAY 18, 1990
ACRES: 20.66
RECORDED: N/A
BOOK: N/A PAGE: N/A

FUTURE PROPERTY AQUISITION
APPROXIMATE ACRES: 143.8

EXISTING PROPERTY LINE

FUTURE PROPERTY LINE

NORTH

0 400 800 1200
SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D.
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H.A. CLARK MEMORIAL FIELD

AIRPORT PROPERTY MAP

WILLIAMS, ARIZONA

PLANNED BY: Leslie F. McConaghey/Scott S. Gray
DETAILED BY: W.B. Holland
APPROVED BY: Jeanette V. Coffman
January 26, 1995 SHEET 7 OF 7

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